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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,410	05/29/2007	Deborah Hurst	51920-US-NP02	5534

27476 7590 07/27/2010

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EXAMINER	
DAVIS, MINH TAM B	
ART UNIT	**PAPER NUMBER**
1642	

MAIL DATE	DELIVERY MODE
07/27/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/566,410	HURST ET AL.	
	Examiner	Art Unit	
	MINH-TAM DAVIS	1642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 May 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,6-8 and 13-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 6-8, 13-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1, 6-8, 13-15 are examined in the instant application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 6-8, 13-15 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Wierda et al, 2001, Expert Rev Anticancer Ther, 1(1): 73-83, IDS of 4/19/07, in view of Dmoszynska et al, 1999, Leukemia & Lymphoma, 34(3-4): 335-340, IDS of 04/17/09, and Denis-Mize et al, 2003, J Immunother, 26 (6), S43, abstract only, of record, an further in view of Mark et al (US 4,518,584, filed on 12/20/1983), and as evidenced by the instant specification (p.3), for reasons already of record in paper of 2/17/10.

The response asserts as follows:

Applicants' claims are directed to a new and nonobvious combination therapy for treating patients with CLL. Applicants submit this is not merely "optimization" that one of skill in the art achieved through "routine experimentation." One of skill in the art simply could not predict that a treatment regimen as claimed would indeed be efficacious. Cancer therapy is extremely complex and it is well known that the agents used and the dosing is critical.

It is also well known that combination therapy can lead to drug-drug interactions that have various effects. For example, there is always the possibility that one drug may alter the intensity and pharmacological effects of another drug if given concurrently. The net result may be a non-existent or diminished effect of one or both of the agents, or the appearance of new effects not seen with either drug alone. For example, the interaction between the drugs may be pharmacokinetic, i.e., alteration of the absorption, distribution, or elimination of one drug by another, or may be pharmadynamic, i.e., interactions between agonists and antagonists at drug receptors. The most important drug-drug interactions occur with drugs that have serious toxicity and low therapeutic index, such that relatively small changes in drug level can have significant adverse consequences. Drugs are known to interact at any point during their absorption, distribution, metabolism or excretion. Thus, the frequency of beneficial or adverse effects is unknown until the actual combination is tested. See, Goodman & Gilman's: The Pharmacological Basis of Therapeutics, 10th Edition, McGraw-Hill Publishing Division, 2001, pages 54-56, appended hereto for the Examiner's convenience. The teachings in this reference clearly support that the efficacy of two agents in combination, such as aldesleukin and Alemtuzumab, is unpredictable.

The submission of Goodman & Gilman is acknowledged.

The response has been considered but is not found to be persuasive for the following reasons:

One would have a reasonable expectation of a successful therapy of CLL using the method of the cited combined art, in view that a combination of IL-2 with an anticancer drug or

antibody has been shown to be successful for treating cancer, in view of the teaching of Dmoszynska et al and Denis-Mize et al, of record.

Concerning the dosage, determining optimum concentration of reactants is within the level of ordinary skill in the art. See *In re Kronig*, 190 USPQ 425. Further, "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). See also *In re Geisler*, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997).

Concerning the severe toxicity due to possible drug-drug interaction, Applicant has not provided any reference showing a severe toxicity due to the particular interaction between IL-2 and the anti-CD52 antibody taught by the combined art. On the contrary, IL-2 combined with an anti-cancer monoclonal antibody, rituximab, has been used successfully for treating a lymphoma, as taught by Denis-Mize et al, of record. Further, it is noted that this a not a FDA review.

Conclusion

No claims are allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH-TAM DAVIS whose telephone number is 571-272-0830. The examiner can normally be reached on 9:00 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LARRY HELMS can be reached on 571-272-0832. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MINH TAM DAVIS
July 23, 2010

/Larry R. Helms/

Supervisory Patent Examiner, Art Unit 1643